

## DS-2XV6646G0-LIZH(R)S 4 MP Gantry Crane Varifocal Network Camera

**DarkFighter** ✦



- High quality imaging with 4 MP resolution
- Supports low latency, camera decoding with a delay as low as 100 ms
- Expansive night view with up to 50 m white light distance and 80 m IR distance
- Excellent low-light performance via DarkFighter technology
- Clear imaging against strong back light due to 120 dB true WDR technology
- Easy installation with Power over Ethernet (PoE) technology and 9 to 36 VDC power input
- Supports Hikvision Embedded Open Platform (HEOP) with 8 TOPS computing power and importing third party applications
- A built-in wiper(-R) removes water and dust on the screen and ensures clear images when the camera is used in dusty or damp environments
- Water and dust resistant (IP68)

## ▪ Specification

| Camera                      |                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                | 1/1.8" Progressive Scan CMOS                                                                                                                                                                                 |
| Max. Resolution             | 2560 × 1440                                                                                                                                                                                                  |
| Shutter Time                | 1 s to 1/100,000 s                                                                                                                                                                                           |
| Min. Illumination           | Color: 0.0005 Lux @ (F1.2, AGC ON), 0 Lux with light, B/W: 0.0001 Lux @ (F1.2, AGC ON), B/W: 0 Lux with IR                                                                                                   |
| Day & Night                 | IR cut filter                                                                                                                                                                                                |
| Angle Adjustment            | Pan: -15° to 15°, tilt: -120° to 45°                                                                                                                                                                         |
| Lens                        |                                                                                                                                                                                                              |
| Focus                       | Auto, Semi-auto, Manual                                                                                                                                                                                      |
| Focal Length & FOV          | 2.8 to 12 mm, horizontal FOV 99.6° to 39.8°, vertical FOV 52.3° to 22.4°, diagonal FOV 119.9° to 45.7°<br>8 to 32 mm, horizontal FOV 40.3° to 14.5°, vertical FOV 22.1° to 8.2°, diagonal FOV 46.9° to 16.5° |
| Iris Type                   | Auto-iris                                                                                                                                                                                                    |
| Aperture                    | 2.8 to 12 mm: Max. F1.47, 8 to 32 mm: Max. F1.7                                                                                                                                                              |
| Illuminator                 |                                                                                                                                                                                                              |
| Supplement Light Type       | IR, White Light                                                                                                                                                                                              |
| Supplement Light Range      | 2.8 to 12 mm: IR: up to 50 m, White Light: up to 30 m<br>8 to 32 mm: IR: up to 80 m, White Light: up to 50 m                                                                                                 |
| HEOP                        |                                                                                                                                                                                                              |
| Open Resources              | System memory: 150 MB<br>Smart RAM: 1800 MB<br>Flash: 3200 MB                                                                                                                                                |
| Computing Power             | 8 TOPS                                                                                                                                                                                                       |
| Deep Learning Structure     | Caffe, PyTorch, TensorFlow                                                                                                                                                                                   |
| Programming Language        | C, C++                                                                                                                                                                                                       |
| Video                       |                                                                                                                                                                                                              |
| Main Stream                 | 50 Hz: 50 fps (2560 × 1440, 1920 × 1080, 1280 × 720)<br>60 Hz: 60 fps (2560 × 1440, 1920 × 1080, 1280 × 720)                                                                                                 |
| Sub-Stream                  | 50 Hz: 25 fps (704 × 576, 640 × 480)<br>60 Hz: 30 fps (704 × 480, 640 × 480)                                                                                                                                 |
| Third Stream                | 50 Hz: 10 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480)<br>60 Hz: 10 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)                                                                   |
| Video Compression           | Main stream: H.265/H.264/H.265+/H.264+<br>Sub-stream: H.265/H.264/MJPEG<br>Third stream: H.265/H.264                                                                                                         |
| Video Bit Rate              | 32 Kbps to 16 Mbps                                                                                                                                                                                           |
| H.264 Type                  | Baseline Profile, Main Profile, High Profile                                                                                                                                                                 |
| H.265 Type                  | Main Profile                                                                                                                                                                                                 |
| Bit Rate Control            | CBR, VBR                                                                                                                                                                                                     |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding                                                                                                                                                                                     |
| Region of Interest (ROI)    | 5 fixed regions for main stream                                                                                                                                                                              |
| Target Cropping             | Yes                                                                                                                                                                                                          |

| Audio                       |                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment Noise Filtering | Yes                                                                                                                                                                                                                                                                                                                                                                                    |
| Audio Sampling Rate         | 8 kHz/16 kHz/32 kHz/48 kHz                                                                                                                                                                                                                                                                                                                                                             |
| Audio Compression           | G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC-LC/MP3                                                                                                                                                                                                                                                                                                                                 |
| Audio Bit Rate              | 64 Kbps (G.711)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)                                                                                                                                                                                                                                                                                           |
| Audio Type                  | Mono sound                                                                                                                                                                                                                                                                                                                                                                             |
| Network                     |                                                                                                                                                                                                                                                                                                                                                                                        |
| Security                    | Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.2, TLS 1.3, host authentication (MAC address) |
| Simultaneous Live View      | Up to 20 channels                                                                                                                                                                                                                                                                                                                                                                      |
| API                         | ONVIF, ISAPI, SDK, ISUP                                                                                                                                                                                                                                                                                                                                                                |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, WebSocket, WebSockets                                                                                                                                                                                                            |
| User/Host                   | Up to 32 users<br>3 user levels: administrator, operator, and user                                                                                                                                                                                                                                                                                                                     |
| Network Storage             | NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR), Together with high-end Hikvision memory card, memory card encryption and health detection are supported.                                                                                                                                                                                                                        |
| Client                      | iVMS-4200, Hik-Connect, Hik-Central                                                                                                                                                                                                                                                                                                                                                    |
| Web Browser                 | Plug-in required live view: IE 10, IE 11,<br>Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+,<br>Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+                                                                                                                                                                                                        |
| Image                       |                                                                                                                                                                                                                                                                                                                                                                                        |
| Image Settings              | Rotate mode, saturation, brightness, contrast, sharpness, white balance, AGC, adjustable by client software or web browser                                                                                                                                                                                                                                                             |
| Wide Dynamic Range (WDR)    | 120 dB                                                                                                                                                                                                                                                                                                                                                                                 |
| Image Stabilization         | EIS                                                                                                                                                                                                                                                                                                                                                                                    |
| Picture Overlay             | LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format.                                                                                                                                                                                                                                                                                                                |
| Day/Night Switch            | Day, Night, Auto, Schedule, Alarm Trigger                                                                                                                                                                                                                                                                                                                                              |
| Image Enhancement           | BLC, HLC, 3D DNR, Defog                                                                                                                                                                                                                                                                                                                                                                |
| Image Parameters Switch     | Yes                                                                                                                                                                                                                                                                                                                                                                                    |
| SNR                         | ≥ 50 dB                                                                                                                                                                                                                                                                                                                                                                                |
| Privacy Mask                | 8 programmable polygon privacy masks                                                                                                                                                                                                                                                                                                                                                   |
| Interface                   |                                                                                                                                                                                                                                                                                                                                                                                        |
| Video Output                | 1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging)                                                                                                                                                                                                                                                                                                                               |
| Ethernet Interface          | 1 1000 M self-adaptive Ethernet port, 8-core M12 aviation plug                                                                                                                                                                                                                                                                                                                         |
| On-Board Storage            | Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GB                                                                                                                                                                                                                                                                                                      |
| Audio                       | 1 input (line in), max. input amplitude: 3.3 Vpp, input impedance: 1 KΩ, interface type: non-equilibrium<br>1 output (line out), max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium                                                                                                                                                              |

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alarm                            | 1 input, 1 output (max. 12 VDC, 30 mA)                                                                                                                                                                                                                                                                                                                                                                     |
| RS-485                           | 1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)                                                                                                                                                                                                                                                                                                                                         |
| <b>Event</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Basic Event                      | Motion detection (support alarm triggering by specified target types (human and vehicle)), video tampering alarm, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)                                                                                                                                                                                                |
| Smart Event                      | Scene change detection, audio exception detection, defocus detection, unattended baggage detection, object removal detection                                                                                                                                                                                                                                                                               |
| Linkage                          | Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture                                                                                                                                                                                                                                                                            |
| <b>Deep Learning Function</b>    |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Perimeter Protection             | Line crossing, intrusion, region entrance, region exiting<br>Support alarm triggering by specified target types (human and vehicle)                                                                                                                                                                                                                                                                        |
| Dynamic Area Protection          | 1. Supports person detection while the camera is in motion<br>2. Max. detectable targets: 64<br>3. For 2 MP/4 MP/8 MP resolutions, when target size ranges between $32 \times 32/32 \times 32/32 \times 32$ and $64 \times 64/128 \times 128/256 \times 256$ , select High Mode<br>4. For 2 MP/4 MP/8 MP resolutions, when target size $\geq 64 \times 64/128 \times 128/256 \times 256$ , select Low Mode |
| <b>General</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                            |
| Power                            | 12 to 36 VDC, 2.16 A to 0.72 A, max. 25.9 W, M12 circular connector, reverse polarity protection ;<br><br>PoE: IEEE802.3at class 4, 42.5V-57V, 0.41 A to 0.31 A, Max : 24W ;<br><br>When using a 2 m or 10 m power extension cable, the supply voltage must be 12 to 36 V.<br><br>For a 20 m power extension cable, the supply voltage must be 15 to 36 V.                                                 |
| Material                         | ADC12                                                                                                                                                                                                                                                                                                                                                                                                      |
| Dimension                        | 155 mm × 177 mm × 171 mm (6.1" × 7.0" × 6.7")                                                                                                                                                                                                                                                                                                                                                              |
| Package Dimension                | 295 mm × 275 mm × 260 mm (11.6" × 10.8" × 10.2")                                                                                                                                                                                                                                                                                                                                                           |
| Weight                           | Approx. 2.525 kg (5.57 lb.)                                                                                                                                                                                                                                                                                                                                                                                |
| With Package Weight              | Approx. 3.535 kg (7.79 lb.)                                                                                                                                                                                                                                                                                                                                                                                |
| Storage Conditions               | -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                                                                                  |
| Startup and Operating Conditions | -40 °C to 60 °C (-40 °F to 140 °F). Humidity 95% or less (non-condensing)                                                                                                                                                                                                                                                                                                                                  |
| Language                         | 33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian                                                      |
| Wiper                            | -R: Yes                                                                                                                                                                                                                                                                                                                                                                                                    |
| General Function                 | Anti-banding, heartbeat, mirror, flash log, password reset via email, pixel counter                                                                                                                                                                                                                                                                                                                        |
| <b>Approval</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                            |
| EMC                              | CE-EMC: EN 55032:2015+A1:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021                                                                                                                                                                                                                                                                                   |
| Safety                           | CB: IEC 62368-1: 2014                                                                                                                                                                                                                                                                                                                                                                                      |
| Protection                       | IP68: IEC 60529:1989+AMD1:1999+AMD2:2013                                                                                                                                                                                                                                                                                                                                                                   |

|                         |                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Transport Certification | IATA Dangerous Goods Regulations, Dangerous Goods List, International Maritime Dangerous Goods Code, Railway Dangerous Goods List |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|

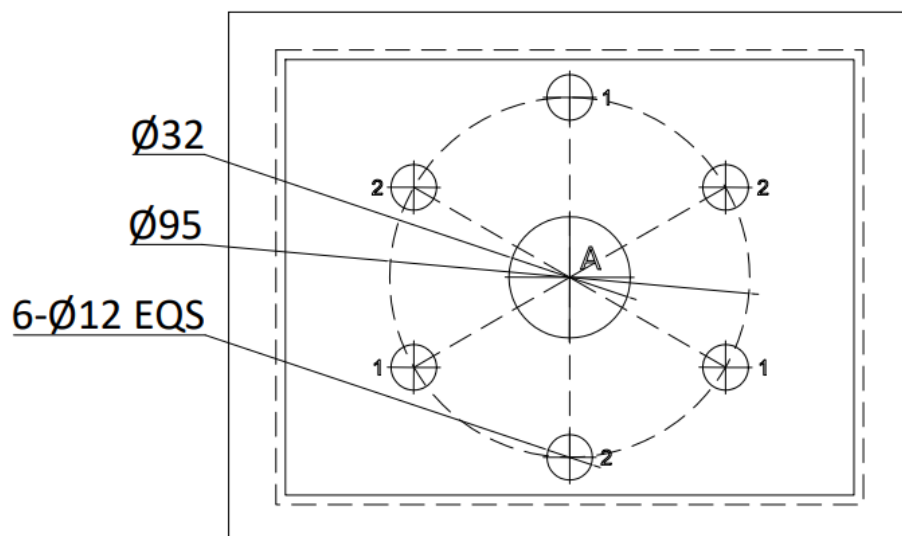
## ▪ Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

This model has NO SPECIFIC PROTECTION.

| Level                  | Description                                                                                                                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Top-level protection   | Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.                                             |
| Moderate protection    | Hikvision products at this level are equipped for use in areas with moderate anti-corrosion demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain. |
| No specific protection | Hikvision products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.                                                                                                                                  |

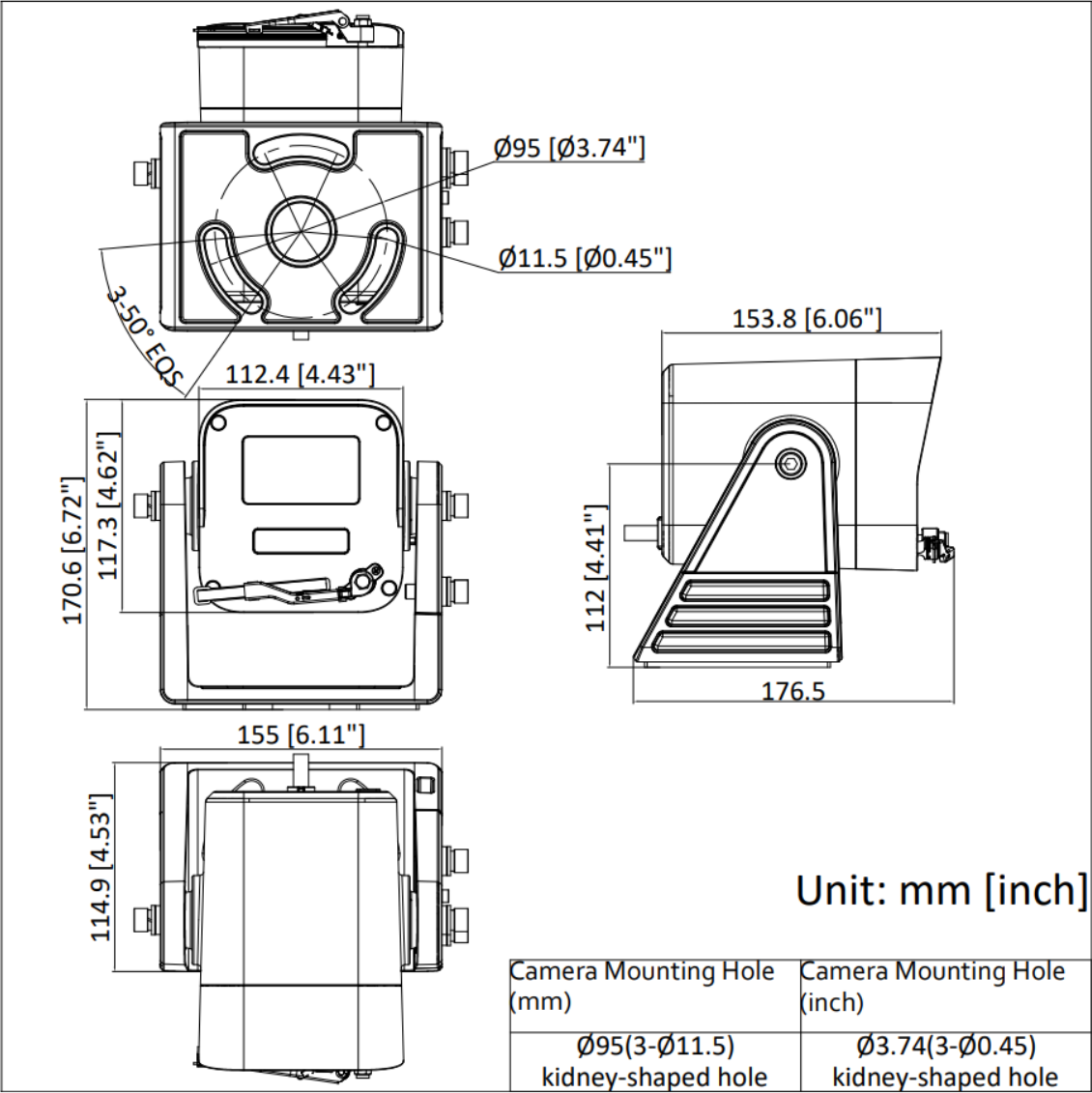
## ▪ Dimension



#### Hole position description:

Hole A: Threading hole, opening as required.

Hole 1 and hole 2: two groups of equipment installation holes. It is recommended to open all the holes and select the hole position for installation as required.



# See Far, Go Further



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